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(54) Title: ACTIVE MATRIX DISPLAY DEVICE



(57) Abstract: A display device comprising an array of pixels, with gates of thin film transistors of the pixels in a row connected to a row conductor. Row driver circuitry provides row address signals for controlling the switching of the transistors of the pixels of the row including an ON gate voltage and an OFF gate voltage. Control circuitry shifts the ON gate voltage and the OFF gate voltage in dependence on drive and/or environmental conditions such as temperature and/or refresh rate. The control circuitry maintains a constant difference between the ON gate voltage and the OFF gate voltage. This allows the gap between the on and off voltages to be reduced, which results in power savings. The kickback voltage is kept constant so that kickback compensation is kept simple.

